

Date: Friday, 01/08/2008 10:46:19 AM
 User: Julie Lecocq

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services		Drawing Name	: AFT FACING SEAT ASS'Y LH			
Job Number	: 40918			Part Number	: D412769043		
Estimate Number	: 13306			Drawing Number	: D412-769-1 REV B		
P.O. Number	:			Project Number	: N/A		
This Issue	: 01/08/2008	S.O. No. :		Drawing Revision	: B		
Prsht Rev.	: NC			Material	:		
First Issue	: / /		Type	: SMALL /MED FAB			
Previous Run	: 40917			Due Date	: 22/08/2008		
Written By	:			Qty:	1 Um: Each		
Checked & Approved By	: JUP 08.8.9						
Comment	: Est rev A 08.05.12 new issue DD verified by:EC Est Rev:B 08-07-17 revB as per dwg DD verified by:ec						

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :	
1.0	PACKAGING 1	PACKAGING RESOURCE #1	
Comment: PACKAGING RESOURCE #1			
Pick Packing Kit			
2.0	D3782045	Back Leg Assembly	
Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)			
Back Leg Assembly batch: 40873			
3.0	D3782041	Front Inboard Leg Assembly	
Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)			
Front Inboard Leg Assembly batch: 42135			
4.0	D3782043	Front Outboard Leg Assembly, LH	
Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)			
Front Outboard Leg Assembly, LH batch: 42137			
5.0	D3783041	Lateral Brace Assembly	
Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)			
Lateral Brace Assembly batch: 40874			

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Friday, 01/08/2008 10:46:19 AM
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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: AFT FACING SEAT ASS'Y LH

Job Number: 40918

Part Number: D412769043

Job Number:



Seq. #: Machine Or Operation:

Description :

6.0 D3783043 Longitudinal Brace Assembly



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Longitudinal Brace Assembly

batch: 40875

sqd

7.0 D3783045 Angle Brace Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Angle Brace Assembly

batch: B40876-5

SQD 08/10/04

8.0 D3784041 Seat Support Assembly, Center



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Seat Support Assembly, Center

batch: 40877

SQ

9.0 D3784043 Seat Support Assembly, LH



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Seat Support Assembly, LH

batch: 40878

sd

10.0 D3784044 Seat Support Assembly, RH



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Seat Support Assembly, RH

batch: 40879

SQ

11.0 D37661 Front Rail, LH



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Front Rail

batch: 40863

SQ

12.0 D37663 Rear Rail



(X)

Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Rear Rail

batch: 40865

8/10/04

SQ

Dart Aerospace Ltd

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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: AFT FACING SEAT ASS'Y LH

Job Number: 40918

Part Number: D412769043

Job Number:



Seq. #: Machine Or Operation:

Description :

13.0 D37671 Upper Rail



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Upper Rail

batch: 40966

50

14.0 D37921 Seat Belt Eye Bolt



Comment: Qty.: 3.0000 Each(s)/Unit Total : 3.0000 Each(s)

Seat Belt Eye Bolt

batch: 41923

SP

15.0 AN415A Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Bolt

batch: M108868

50

16.0 AN45 13A EYE BOLT



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

EYE BOLT

batch: M109018

50

17.0 AN510A Bolt



Comment: Qty.: 6.0000 Each(s)/Unit Total : 6.0000 Each(s)

Bolt

batch: M108827

50

18.0 AN513A Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Bolt

batch: M108167

SP

19.0 AN960JD10 Washer



Comment: Qty.: 21.0000 Each(s)/Unit Total : 21.0000 Each(s)

Washer

batch: M104625

(12) (9)
M109059

(or NAS1149D0363J) batch:

50

SP

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: AFT FACING SEAT ASS'Y LH

Job Number: 40918

Part Number: D412769043

Job Number:



Seq. #: Machine Or Operation:

Description :

20.0 AN960JD416 Washer



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

Washer

batch: M108822

(or NAS1149D0463J) batch: _____

SP

21.0 AN960JD516 Washer



Comment: Qty.: 20.0000 Each(s)/Unit Total : 20.0000 Each(s)

Washer

batch: M109059

(or NAS1149D0568J) batch: _____

SP

22.0 AN52510R24 Screw



Comment: Qty.: 9.0000 Each(s)/Unit Total : 9.0000 Each(s)

Screw

batch: M108877

SP

23.0 MS21042L3 Nut



Comment: Qty.: 9.0000 Each(s)/Unit Total : 9.0000 Each(s)

Nut

batch: M101625

M108701

SP

24.0 MS21042L4 Nut



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Nut

batch: M108145

SP

25.0 MS21042L5 Nut



SP

Comment: Qty.: 12.0000 Each(s)/Unit Total : 12.0000 Each(s)

Nut

batch: M108161

81019

SP

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
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Drawing Name: AFT FACING SEAT ASS'Y LH

Job Number: 40918

Part Number: D412769043

Job Number:



Seq. #:

Machine Or Operation:

Description :

26.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

1- assemble as per dwg D412-769-1

FF 08/10/15

①

27.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

S 08/10/15 (X)

28.0

POWDER COATING

POWDER COATING



M 106422

(X)

Comment: POWDER COATING

1- mask D3782-041 and D3782-043 front legs and D3787-1 foot as per dwg D412-769-041

2- Powder coat remainig of assembly grey as per dwg D412-769-1

Powder Coat Grey Sandtex (Ref: 4.3.5.6) as per QSI 005 4.3

START TIME:

2:20

0F

OVEN TEMPERATURE:

320

FINISH TIME:

2:50

m / 08/10/15

①

29.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

F 08/10/15

30.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Pick Packing Kit

31.0

D37751

Guard



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Guard

batch:

400869

6

FF 08/10/16

②

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 QA: N/C Closed: _____ Date: _____

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Drawing Name: AFT FACING SEAT ASS'Y LH

Job Number: 40918

Part Number: D412769043

Job Number:



Seq. #:	Machine Or Operation:	Description :
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32.0	D37741	Seat Bottom, LH/RH
------	--------	--------------------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Seat Bottom, LH

batch: 41084

SL0

33.0	D37743	Seat Back, LH/RH
------	--------	------------------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Seat Back, LH

batch: 40860

SL0

34.0	AN525 10R22	Screw
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Comment: Qty.: 13.0000 Each(s)/Unit Total : 13.0000 Each(s)

Screw

batch: M109267

SL0

35.0	AN960JD10L	Washer
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Comment: Qty.: 13.0000 Each(s)/Unit Total : 13.0000 Each(s)

Washer

batch: M105793

(or NAS1149D0332J) batch:

SL0

36.0	MS21042L3	Nut
------	-----------	-----



Comment: Qty.: 19.0000 Each(s)/Unit Total : 19.0000 Each(s)

Nut

batch: M108701

SL0

37.0	AN35A	Bolt
------	-------	------



1x

Comment: Qty.: 6.0000 Each(s)/Unit Total : 6.0000 Each(s)

Bolt

batch: 15205

③

M100188

SL0/9

SL0

38.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1
------	-------------	-------------------------------



PHO →

Comment: SMALL & MEDIUM FAB RESOURCE 1

1- install remaining parts as per dwg D412-769-1

FF 08/10/16

①

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D412-769-043 PAR #: _____ Fault Category: Prod Fab ass' med & small NCR: No DQA: D Date: 08/10/23
 QA: N/C Closed: H Date: 08/10/23

NCR: 40918		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
08.10.16	38	During assembly employee Did not place the seat pan D3724-1 (Bottom) R.C. Human error/ Lack not paying enough attention	PB 081 042 08.10.16	Slot the seat (4) side holes to 0.380" to allow Bolt to go through.	EF 08/10/16	<u>4</u> 08/10/16	PB 081 042 08.10.16	<u>C</u> 08/10/16

NOTE: Date & initial all entries

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Drawing Name: AFT FACING SEAT ASS'Y LH

Job Number: 40918

Part Number: D412769043

Job Number:



Seq. #: Machine Or Operation:

Description :

39.0 QC5

INSPECT WORK TO CURRENT STEP



S 08/01/6 (2)

Comment: INSPECT WORK TO CURRENT STEP

40.0 PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location:

PPD 40885

41.0 QC21

FINAL INSPECTION/W/O RELEASE



08/10/22 (J)

Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



mt 08-10-22

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

8 7 6 5 4 3 2 1

D

D

C

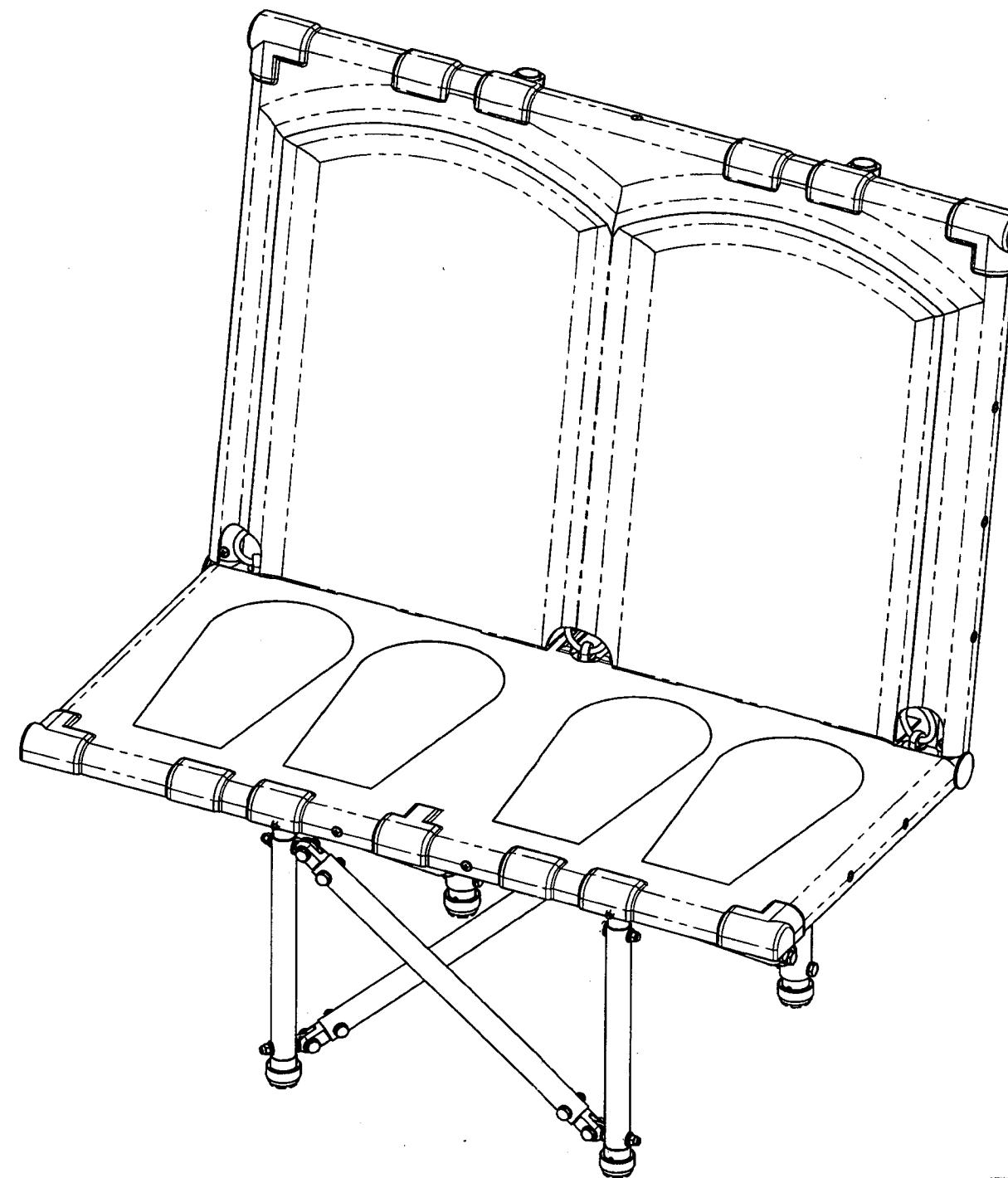
C

B

B

A

A



D412-769-043 AFT FACING SEAT ASSY, LH

B	NEW HARDWARE	HS	08.06.25
A	NEW ISSUE	HS	08.06.04
REV.	DESCRIPTION		
DESIGN	HS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	HS		
CHECKED	MP	DRAWING NO.	REV. B
MFG. APPR.	AA	D412-769-1	SHEET 1 OF 7
APPROVED	MP	TITLE	SCALE
DE APPR.	AA	AFT FACING SEAT ASSY, LH	NTS
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08.07.09 MP

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WORK ORDER
NO. 14098

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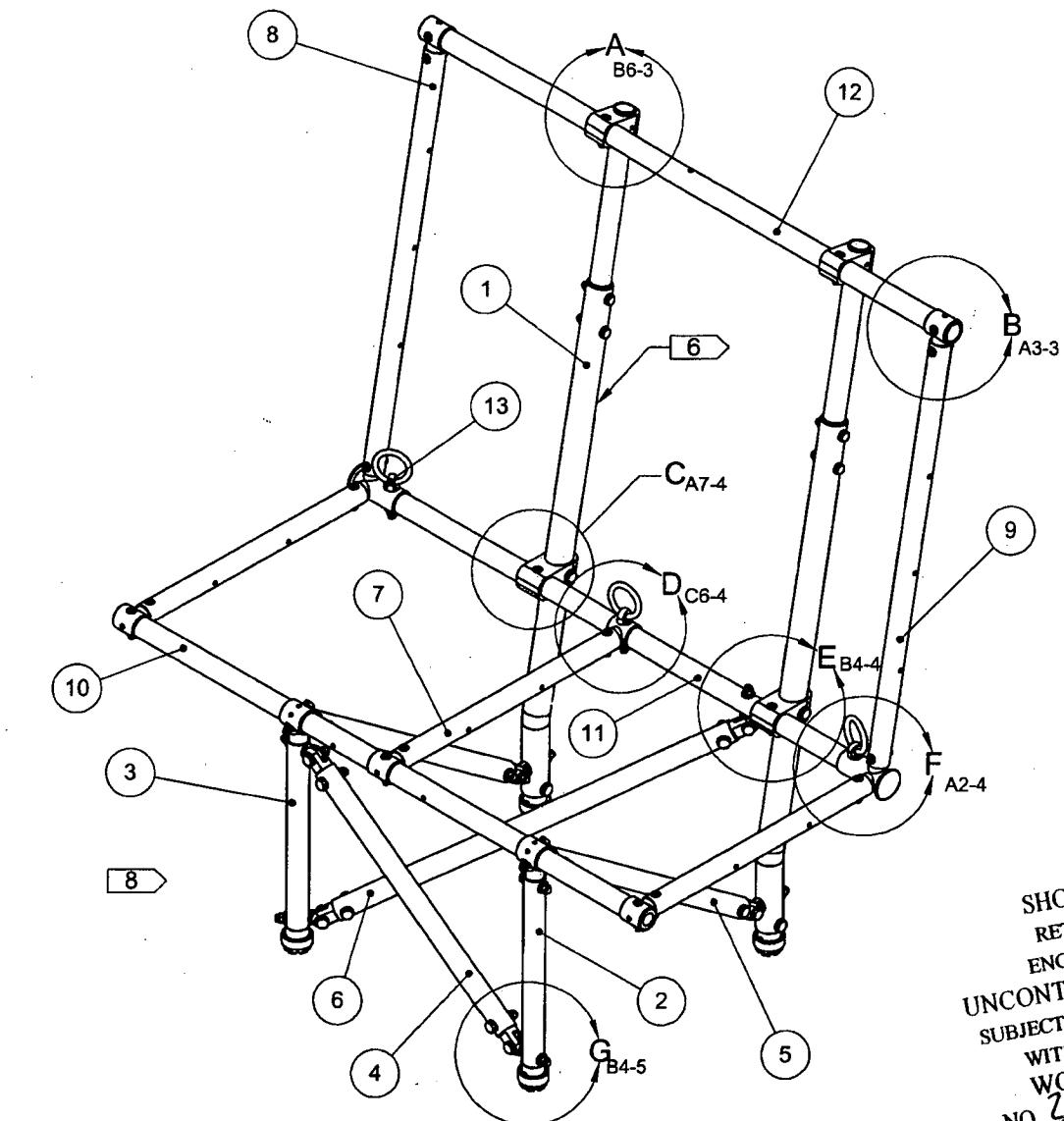
B

B

A

A

ITEM NO.	PART NUMBER	DESCRIPTION	QTY. (-043)
1	D3782-045	BACK LEG ASSY	2
2	D3782-041	FRONT INBOARD LEG ASSY	1
3	D3782-043	FRONT OUTBOARD LEG ASSY, LH	1
4	D3783-041	LATERAL BRACE ASSY	1
5	D3783-043	LONGITUDINAL BRACE ASSY	2
6	D3783-045	ANGLE BRACE ASSY	1
7	D3784-041	SEAT SUPPORT ASSY	1
8	D3784-043	SEAT SUPPORT ASSY, LH	1
9	D3784-044	SEAT SUPPORT ASSY, RH	1
10	D3766-1	FRONT RAIL, LH	1
11	D3766-3	REAR RAIL	1
12	D3767-1	UPPER RAIL	1
13	D3792-1	SEAT BELT EYE BOLT	3
14	D3775-1	GUARD	2
15	D3774-1	SEAT BOTTOM	1
16	D3774-3	SEAT BACK	1
17	AN3-5A	BOLT	6
18	AN4-15A	BOLT	2
19	AN45-13A	EYE BOLT	1
20	AN5-10A	BOLT	6
21	AN5-13A	BOLT	2
22	AN525-10R22	SCREW	13
23	AN525-10R24	SCREW	9
24	MS21042L3	NUT	28
25	MS21042L4	NUT	2
26	MS21042L5	NUT	12
27	NAS1149D0332J	WASHER (AN960JD10L)	13
28	NAS1149D0363J	WASHER (AN960JD10)	21
29	NAS1149D0463J	WASHER (AN960JD416)	4
30	NAS1149D0568J	WASHER (AN960JD516)	20

B
B

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WORK ORDER
NO. 4098

D412-769-043 AFT FACING SEAT ASSY, LH

RELEASED
08-07-09

DESIGN	HS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
DRAWN	HS	
CHECKED		
MFG. APPR.		
APPROVED		
DE APPR.		
DATE	08.06.25	REV. B DRAWING NO. D412-769-1 SHEET 2 OF 7 TITLE SCALE AFT FACING SEAT ASSY, LH NTS

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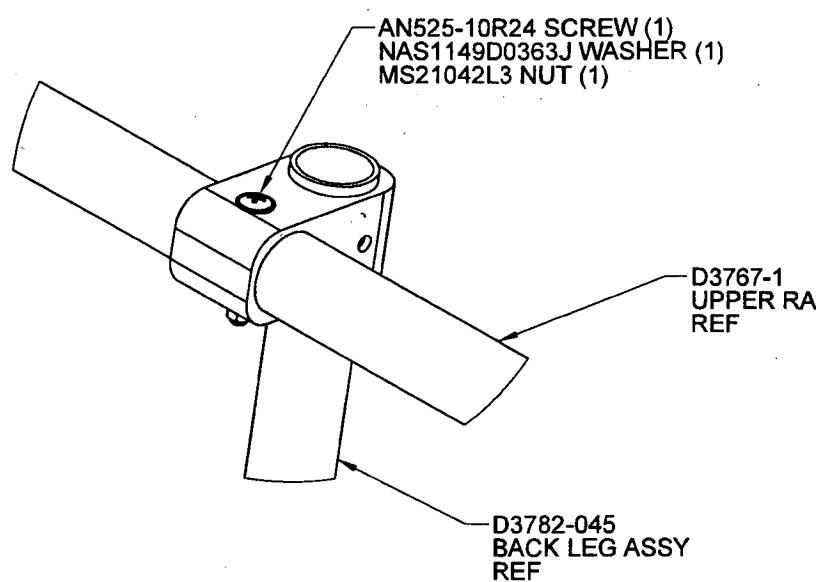
NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT ASSEMBLED SEAT "GREY SANTEX" (4.3.5.6) PER DART QSI 005 4.3 PRIOR TO INSTALLATION OF SEAT BOTTOM/BACK (D3774-1/-3). MASK FRONT LEGS PRIOR TO POWDER COAT.
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH D2729-1 RED DECAL ATTACHED TO BACK LEG ASSEMBLY (D3782-045)
- 7) WEIGHT: 30.0 lbs
- 8) ITEM 15 (D3774-1 SEAT BOTTOM) AND ITEM 16 (D3774-3 SEAT BACK) REMOVED FOR CLARITY

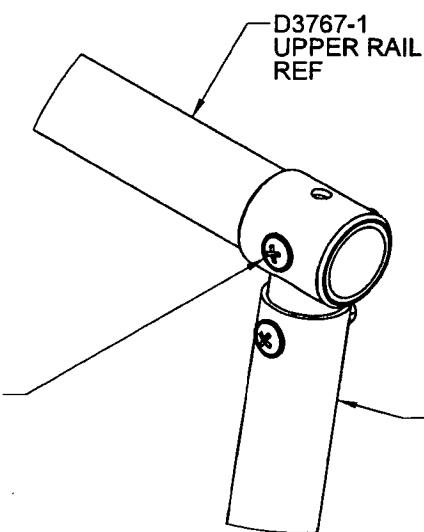
8 7 6 5 4 3 2 1

D

D



DETAIL A D2-2
UPPER RAIL TO BACK LEG ATTACHMENT
2 PL



DETAIL B C1-2
SEAT SUPPORT END ATTACHMENT
5 PL

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WORK ORDER
NO. 40918

RELEASED
08.07.09

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DRAWN	HS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AS	DRAWING NO.	
MFG. APPR.	MP	D412-769-1	REV. B
APPROVED	MP	TITLE	SHEET 3 OF 7
DE APPR.	MP	AFT FACING SEAT ASSY, LH	SCALE NTS
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8 7 6 5 4 3 2 1

C

C

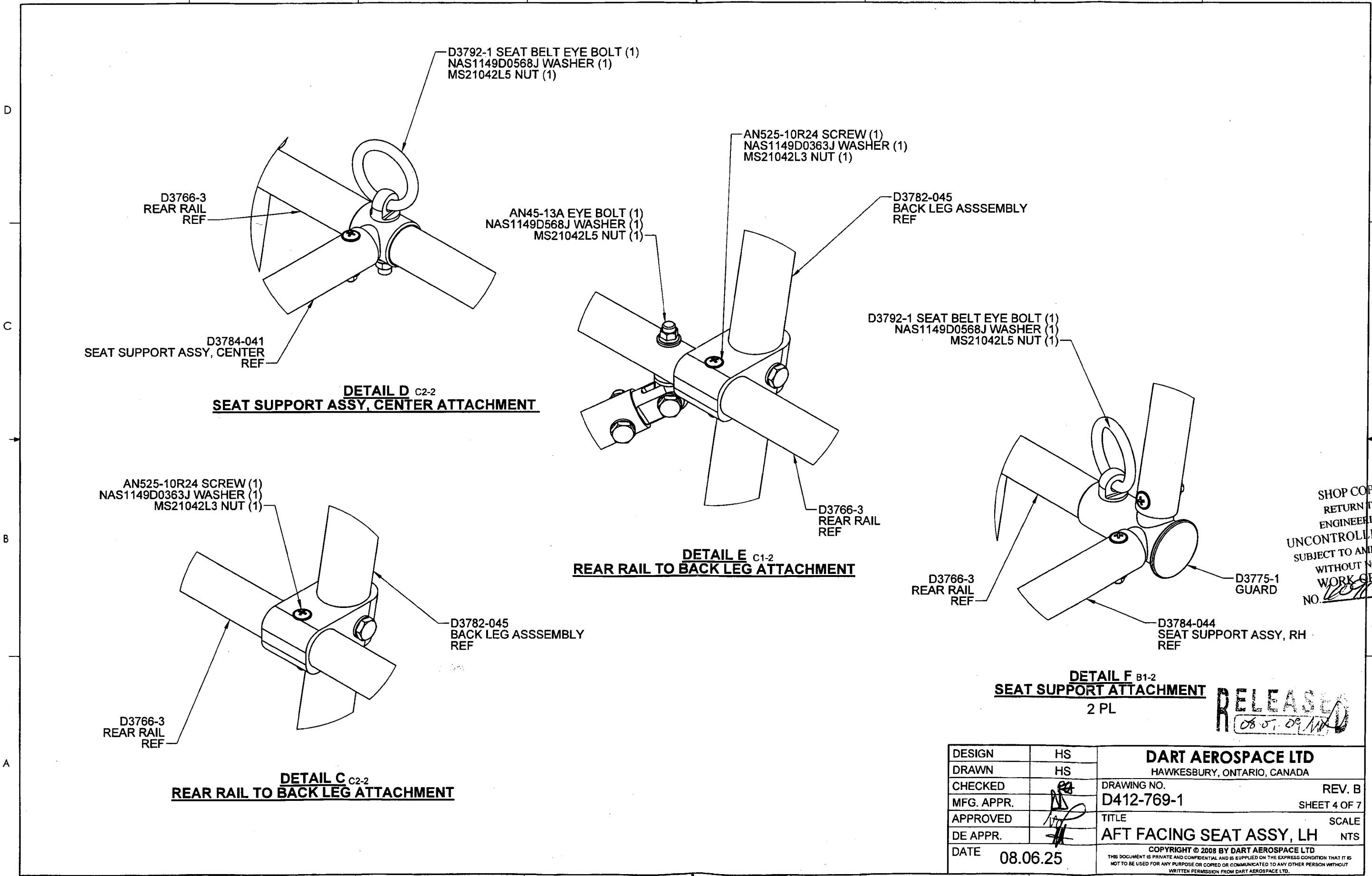
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A

8 7 6 5 4 3 2 1



8 7 6 5 4 3 2 1

D

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8 7 6 5 4 3 2 1

D

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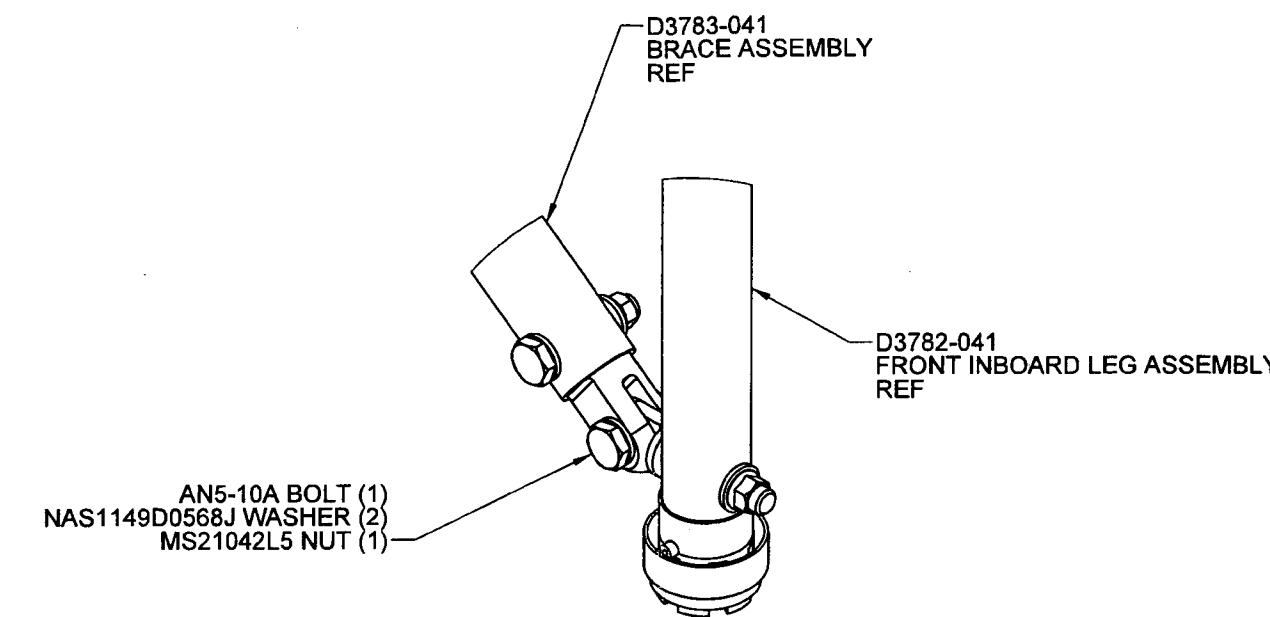
C

B

B

A

A



DETAIL G_{B2-2}
BRACE ATTACHMENT

6 PL

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NO. *4078*

RELEASED
07.07.10

DESIGN	HS	DART AEROSPACE LTD	
DRAWN	HS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>AS</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>AS</i>	D412-769-1	SHEET 5 OF 7
APPROVED	<i>AS</i>	TITLE	SCALE
DE APPR.	<i>AS</i>	AFT FACING SEAT ASSY, LH	
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8

7

6

5

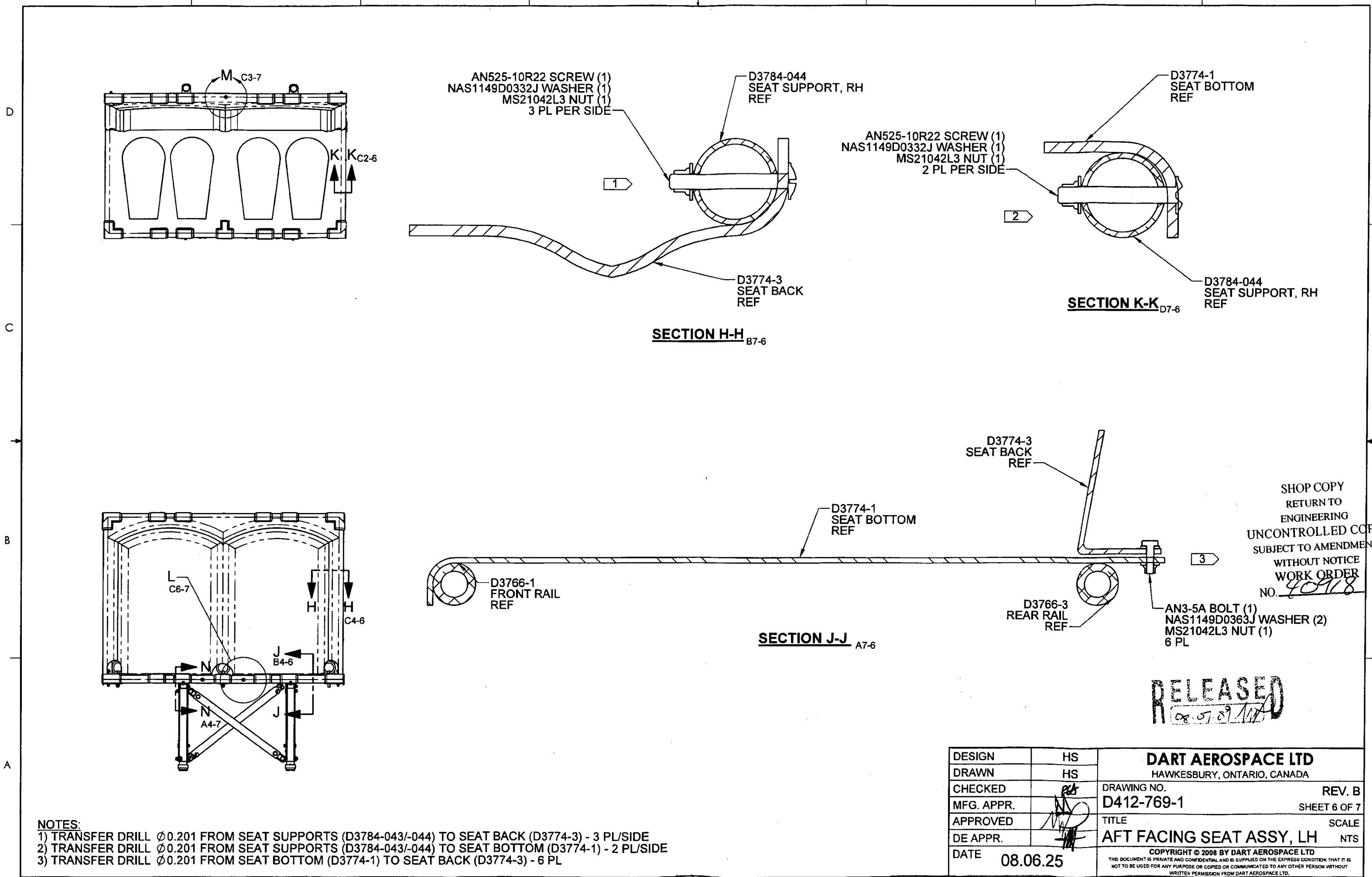
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3

2

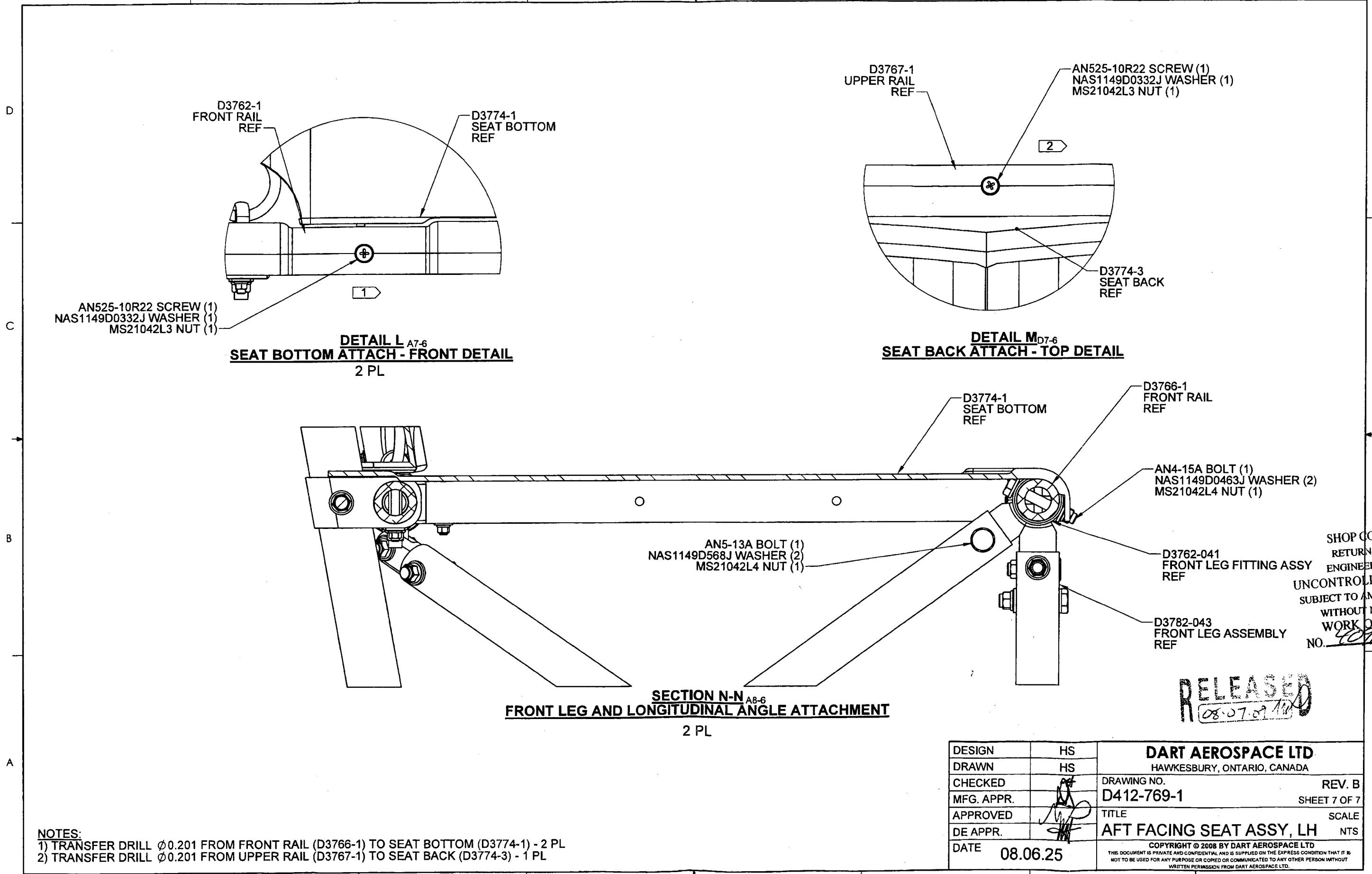
1

8 7 6 5 4 3 2 1



8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1



8 7 6 5 4 3 2 1

